

**COMBINATORIAL SYNTHESIS AND ANALYSIS OF METAL-  
LIGAND COMPOSITIONS USING SOLUBLE METAL PRECURSORS**

ABSTRACT OF THE INVENTION

The present invention relates to a process of  
5 conducting research using combinatorial techniques wherein  
metal-ligand compositions are synthesized and screened for  
reactivity in reactions of interest, particularly metal-  
ligand compounds which are suitable for use as catalysts.  
In the process, an array of different metal-ligand  
10 compositions is prepared by delivering a dissolved, soluble  
metal precursor and a metal-binding ligand to each reaction  
vessel or well in the array, where they may optionally be  
combined with an activator and/or other additives. The  
resulting metal-ligand composition in each vessel is then  
15 screened for reactivity in a chemical reaction of interest,  
particularly for catalytic activity in a polymerization  
reaction.